



THE HINDU GROUP

# THE WONDER THAT WAS HARAPPAN CIVILISATION

# Crocodile worship in Indus times

The crocodile cult of the Indus Valley Civilisation (IVC) disappeared in north-west India, but continued to exist in the Megalithic south India. "Pasupati" or crocodile stands out as the unique deity

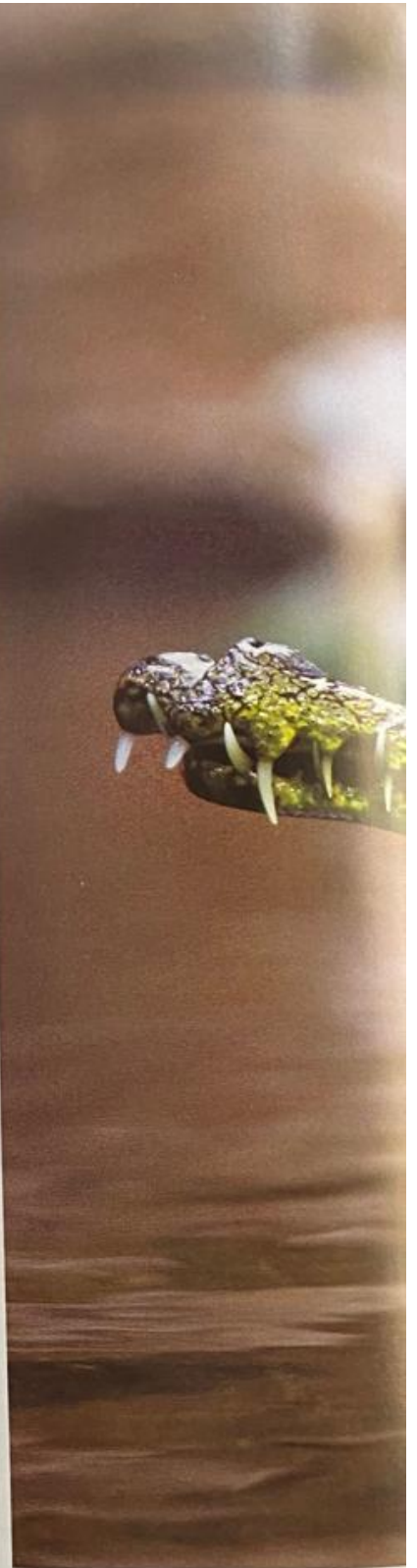
N. GANESAN

**S**ome aspects of the Indian religion in the post-Harappan period provide a link to the Indus Valley Civilisation (IVC) as seen in its seals and tablets. Anthropomorphic Axe (AA) bronzes of the second millennium BCE were found in the Indo-Gangetic *doab* (plains). These bronzes are shown to embody a Makara (crocodile) god which symbolises Varuna, the god of water and rain. It is in water that fish and crocodiles, engraved on many Harappan seals, are found. The AA of the Indo-Gangetic *doab* can be related to similar sculptures found in Megalithic burial sites in Tamil Nadu, Karnataka and Andhra Pradesh. The Megalithic Iron Age in south India is datable from circa 1200-600 BCE.


I suggest that when the crocodile cult of the IVC disappears in north-west India, it appears as large



H-5







▼ A gharial with its famed snout. N. Ganesan suggests that this river crocodile was considered an equivalent of the "Pasupati" during the days of the Indus Civilisation.

PHOTO: THE HINDU ARCHIVES





◀ The Mohenjo-daro seal (M-304) showing a deity surrounded by various types of animals. The deity has been called Proto-Pasupati

▼ A horned gharial, identified by the author as 'Proto-Varuna' ('Mrigapati' or master of animals), seen in the Mohenjo-daro seal (M-439).

monolithic sculptures in the Megalithic south India. I also suggest that the Asvamedha (horse) sacrifice on the banks of a water tank was performed for a crocodile representing Varuna and this can be seen on the Pandya Peruvazhuti and the Chera coins of the Sangam Age (circa third century BCE to second century CE). In my assessment, graffiti symbols on potsherds from Keezhadi near Madurai, Sanur near Madurantakam and Sulur, near Coimbatore, all situated in Tamil Nadu, seem to show the crocodile sign of the seals of the Indus Civilisation. All these archaeological evidence point to the remarkable continuity in the fertility cult of worshipping crocodile from the IVC days to the Keezhadi period.

### Crocodile as Vitankar

In Mohenjo-daro seals (M-304, M-1181), a deity wearing buffalo horns and sitting in a yogic posture, is depicted. It has been called "Pasupati" (Lord of the universe) because of the surrounding animals: a tiger, an elephant, a water buffalo, and a rhinoceros. They represent the four cardinal directions.

I propose that gharial (*Gavialis gangeticus*), the long-snouted river



crocodile, was considered an equivalent of the "Pasupati" during the days of the IVC. For the crocodile replaces Pasupati in Indus seals, M-439, M-440, M-441, M-1393, M-1394 and M-1395. For instance, a gharial is surrounded by the same set of animals as the Pasupati was surrounded in some seals. The gharial grows many feet long and dominates the surrounding animals in size. The horns of the gharial in the seal M-439 (shown above) are similar to the horns of the Indian bison. The river crocodile has been called Vitankar/Itankar in Tamil texts.

Asko Parpola (2011), the reputed

scholar on the IVC and its script, connects the gharial with Proto-Varuna. He says, "In *Taittiriya Aranyaka* 2.19, the heavenly crocodile is called "the lord of all beings (*bhutanam adhipatir*)", an appellation which further supports identification of this *kan-kani* 'overseer' with the Harappan predecessor of Varuna." (From his paper titled "Crocodile in the Indus Civilization and later South Asian tradition".)

That this mythological figure of the crocodile, as an equivalent of Pasupati, repeatedly shows up on

▼ Crocodile (𑀮𑀺) and its reed house (𑀭𑀺) - a sign sequence in the Indus Script. (From Iravatham Mahadevan's concordance manual).

5293

𑀮𑀺 𑀭𑀺

𑀮𑀺

4419

𑀮𑀺 𑀭𑀺

𑀮𑀺

4451

𑀮𑀺 𑀭𑀺

𑀮𑀺

4372

𑀮𑀺 𑀭𑀺

𑀮𑀺

2562

𑀮𑀺 𑀭𑀺

1058

𑀮𑀺 𑀭𑀺

8045

𑀮𑀺 𑀭𑀺

1438

𑀮𑀺 𑀭𑀺



A tablet from Harappa (H-180) shows a gharial in apparent union with a woman figure (right). At left are two sparring tigers. Harappan signs are seen in between tigers and the gharial image.

COURTESY: NATIONAL MUSEUM OF INDIA, NEW DELHI.



seals and mass-produced pieces from moulds is known from well over a hundred inscriptions of the IVC.

A sign in the Indus Script has been identified as a sign for a crocodile by Parpola. This sign has earlier been taken to be the "Muruku" sign standing for Skanda-Kartikēya by Iravatham Mahadevan (1999), who explained it as a corpse or an emaciated old man crouched against a wall.

Asko Parpola, in his paper, guesses sign no. 87 in the Indus Script as representing a crocodile. He says, "I still believe that the basic sign should be identified as a snake. But looking at the graphic variants of sign no. 87 derived from it, I now support the interpretations of the extensions being 'feet.' Normally, there are four extensions, sometimes arranged in two pairs (i.e., front legs and back legs). The very few exceptions with three or five legs are likely just carving mistakes. My guess is that the sign depicts a reptile with legs (i.e., the crocodile). That the legs are sometimes placed close to the 'head' is due to the crocodile's legs being closer to its head than its tail...."

However, in the texts of Hinduism, Skanda-Murukan is known to be a youthful god who leads an army of *devas* against *asuras*. Hence, I suggest that Mahadevan's interpretation of that



▲ Indus seals M-482 and M-1429 from Mohenjo-daro showing gharials with fish in their mouths.

COURTESY: ASI

**The gharial dominates the surrounding animals in size. The horns of the gharial in M-439 are similar to the horns of the Indian bison**

particular sign standing for "Muruku" can be abandoned. Data from the Indus glyptic art and the Megalithic art of later period support the Indus sign as the crocodile sign.

### Reed house

There is an important reason for identifying that particular sign as standing for a crocodile. In the IVC, big buildings in cities had horizontal roofs. But villages had small homes built by the wattle-and-daub method J. P. Joshi (2008). Much like those in today's rural India, they had slanting and conical roofs. An important Indus sign sequence is the crocodile sign and his reed house. Religious places of worship with the reed house sign shown near the crocodile sign are exactly the same as the reed house appearing on the seals of river boats (Mahadevan 1977). Benille Priyanka (2003) also uses these sign sequences of a crocodile and a reed house, occurring next to each other. This sign sequence of the crocodile next to the



# 'Cosmic overseer holds life below'

**M**aturaikkanci, the Sangam Age text, advises the king about the impermanence of human life and narrates scenes in Madurai starting in the east, circumambulating in counter-clockwise direction and ending in the south. The south-facing Anthropomorphic Axe (AA) sculptures are usually found in Megalithic dolmens and chamber tombs.

Labyrinthine designs, covering a large area, are found near these Megaliths showing the interest of the ancient people in learning about life and death. Both Yama and Varuna hold a noose in their hands. Indeed, Varuna is death [mrtyur vai varunah, KS 13.2]. *Neytal parai* is the funeral drum in classical Tamil. *Neytal* is the littoral landscape whose deity is Varuna.

## Vedic concept

Aerial roots are hanging down invisibly in all the directions from the cosmic banyan fig tree which Varuna holds up in the sky, according to Vedic texts. This is the reason why things do not fall apart in the world. Such a Vedic concept is possible because of the homophony between *vatam* 'rope' and *vata-min* 'Pole star'.

Many such extensions of the homophony principle from Dravidian languages can be cited. A couple of examples are: (i) The fish sign indicating astronomical entities in the Indus Script. (ii) The homophony between *annam* (food) from Indo-European with *annam*



M-489 A



M-489 B

(bar-headed goose) from Dravidian gives birth to the epic myth of *annam/hamsa* birds separating milk from water.

It is likely that the four wild animals shown (in the M-304 Pasupati seal) surrounding the gharial represent the four cardinal directions. Another tablet (M-489) shows four wild animals - an elephant, a rhino, a wild buffalo and a tiger - in a row with the crocodile acting as their overseer from the sky. The Tamil verb, *nalu-tal* refers to "hanging down" (DEDR 2912) and the crocodile god supporting life in all four directions from the Pole Star via invisible ropes is the possible reason why the digit four is named as *nalu/nanku* (<*nalu*-) in Dravidian. On another side of the tablet, the overseer crocodile with another set of four animals possibly represents the four cardinal directions.

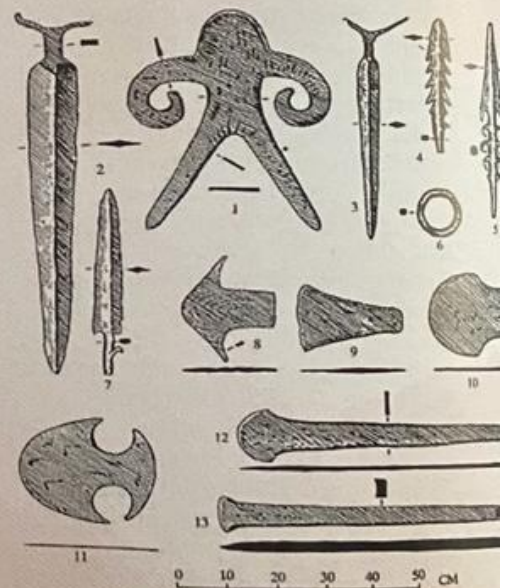
Together these can be taken to mean that the entire universe in all eight directions are under the control of the crocodile deity. On the tablet's third side along with some plants and animals, there is a copulating human couple indicating the role of the tablet in fertility rituals.



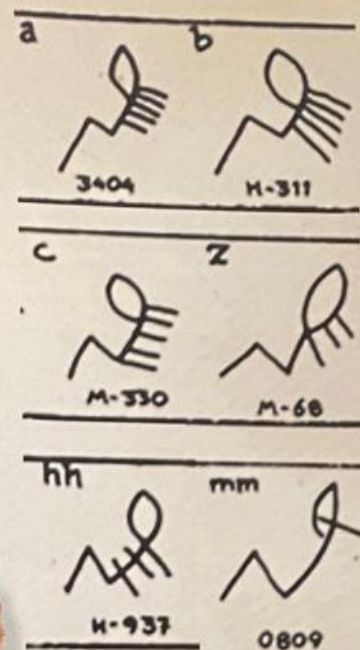
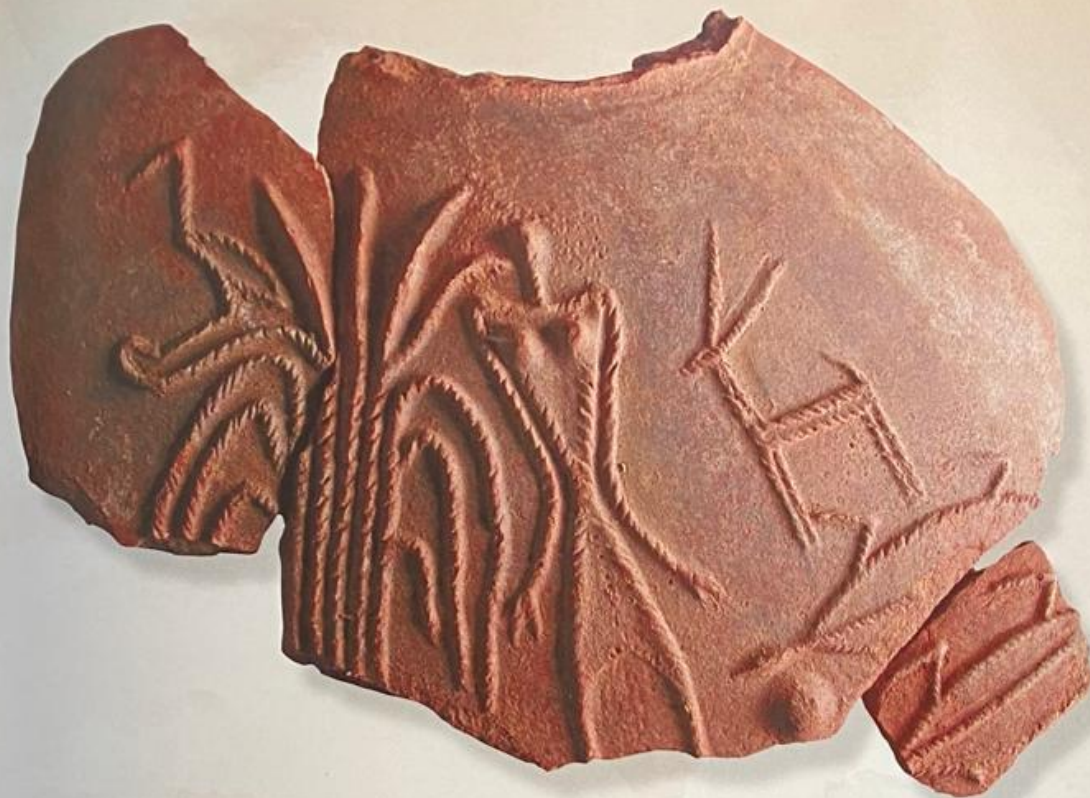
▲ A gharial and blackbuck amulet from the 4MSR site in Binjor, Rajasthan.

PHOTO: THE HNDU ARCHIVES

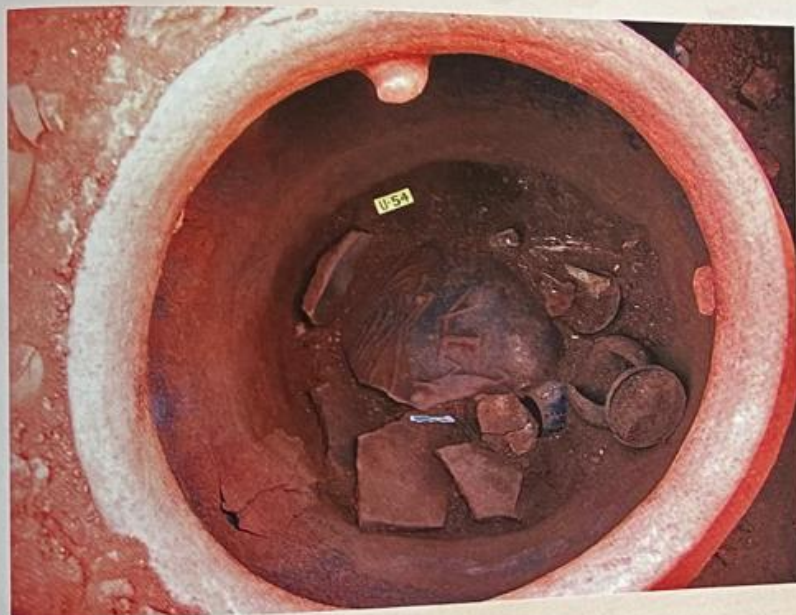
▼ An Anthropomorphic Axe and weapons of the Copper Hoard Culture from the Yamuna-Gangetic Plains.







▲ Indus sign number 87, identified as a crocodile by Asko Parpola in a paper written by him.



▲ (Top) A potsherd with the applique designs of a woman (interpreted as 'Korravai'), a deer, a crocodile, an egret sitting on a sheaf of paddy etc. This potsherd was found inside a burial urn (above) at Adichanallur in Tamil Nadu.

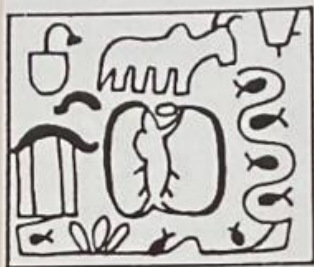
PHOTOS: A. SHAIKMOHIDEEN AND PROF. K. RAJAN



▲ The Harappan crocodile deity in the Copper Hoard Culture, from Sonapat in Haryana



## BRICK BY BRICK



### Pandya coins featuring crocodile

In the Early Historic period of Tamil Nadu, Pandya kings issued coins celebrating the Vedic sacrifices they sponsored, and some coins depict the Makara crocodile deity.

According to Ganesan, Makara month is the *Thai* month in Tamil. Makara comes from *mokara* due to the voracious eating habits of crocodiles. It is important to note that among the names of 12 months, only *Tai (Thai)* which means "Father, King" in Tamil is a pure Tamil word. All the other names of 11 months in the Indian calendars ultimately come from Hellenistic astronomy from Babylon. The crocodile is even now worshipped as Mogara Dev in Sindh and Gujarat regions.



◀ Makara crocodile graffiti signs from Keezhadi pottery, an artefact and sketches of other samples.

COURTESY: DEPARTMENT OF ARCHAEOLOGY, TAMIL NADU



reed house confirms its aquatic nature.

Crocodile and blackbuck, which are likely representations of the Pole Star and the Great goddess in the Harappan period, are featured in a ceramic amulet excavated from the Harappan industrial site called 4MSR near Binjor, Rajasthan (*Frontline*). In this amulet, the head and tail of the gharial are found broken.

The Ochre Coloured Pottery culture (OCP) in the Gangetic plains is a second millennium BC Bronze Age culture of the Indo-Gangetic Plain (Ganga-Yamuna *doab*). It succeeded the Harappan Civilisation. Bronze weapons and an AA have been discovered in scores of sites from Haryana to Bihar.

### Unique find

A chance find from a Haryana post-Harappan mound and the developments in the Early Iron Age succeeding the OCP and the Tamil Sangam texts throw new light on the crucial AA identity. An important anthropomorphic figure and a copper sword have been acquired by the Archaeological Survey of India (ASI) from a person named Sabdar Ali of Sonapat district, Haryana. The village has a large mound belonging to the Late Harappan and Post-Harappan

### In potsherds recovered in recent excavations at Keezhadi, graffiti show crocodile signs resembling the Makara sign from the Indus Civilisation

periods. It is a unique AA figure from the Copper Hoard Culture period with a crocodile head on a human male torso and is kept in the ASI Office, Purana Qila, New Delhi. Looking at the side view of the mouth of the mugger crocodiles, it is suggested that the Copper Hoard AA is actually a Makara, and not a boar. The continuity of religion of the Indus Civilisation and its crocodile god is most likely shown in the AA cult bronzes.

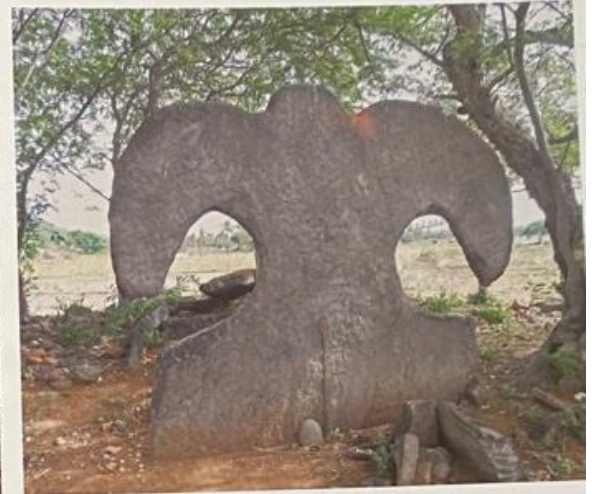
The warrior-like appearance of the AA figures with strong shoulders is noticeable in these AA bronzes. Metallurgical analysis of the AA with the face of a crocodile by two teams of ASI has shown the properties to match with those of the Copper Hoard Culture. The Gangetic AA figures





▼ Anthropomorphic Axe sculptures from the Early Iron Age at Mottur and Udayarnattam in Tamil Nadu.

PHOTOS: VELUDHARAN



found over a wide area number more than 130 now, and their identification with the crocodile deity shows the predominance of the Indian indigenous religious cult.

No such figures are found anywhere outside India, including the Bactria-Margiana Archaeological Complex (BMAC) in Central Asia. Both the Indus and BMAC civilisations were flourishing around the same time (2200-1800 BCE). Over time, the production of Post-Harappan AA figures in bronze ceased in north India.

## Megaliths

Big monolithic sculptures, made with iron tool technology, have been discovered in Tamil Nadu, Karnataka and Andhra Pradesh in the last several decades. They may date to circa 800-500 BCE. While the knowledge on Harappan crocodile deity morphing into AA in the Copper Hoard and OCP

cultures in north India vanished, the tradition is kept alive in south India since the Early Iron Age. There are two AA examples from Tamil Nadu Megaliths at Mottur and Udayarnattam. These monolithic sculptures face south. The Tamil Sangam Age poem, *Maturaikkanci* calls this all-powerful deity as Maluval Netiyon (the Great One in axe weapon form) who created the five elements in the world.

In the funerary rituals of the Early Iron Age, the crocodile deity and his spouse, Korravai, were worshiped. This is seen on a potsherd found inside a burial urn from Adichanallur where the divine couple are shown as a crocodile and Korravai. There are applique figures on the potsherd showing a crocodile, a tall woman standing next to a crocodile, a deer nearby, paddy stalk with an egret sitting on the standing paddy crop etc. Even as early as the Indus Civilisation, the crocodile couple is shown in some

seals (like H-742). Anthropomorphic Axe couple with the male having a straight body and the female with a curving body is found in Kummathi, Karnataka.

In potsherds recovered in the recent excavations at Keezhadi in Tamil Nadu, graffiti show crocodile signs resembling the Makara sign from the Indus Civilisation. The crocodile sign is also seen in Megalithic pottery from Sanur, Tamil Nadu. In another example, the sea-farers of Tamil Nadu carried the crocodile sign to Thailand.

Thus, Makara crocodile symbolism of the Indus Civilisation shows the great continuity of Indian religion for 25 centuries from circa 2700 BCE at 4MSR in Rajasthan to 580 BCE at Keezhadi, Tamil Nadu.

*(Dr Nagamanickam Ganesan lives in Houston, Texas, U.S. He is an aerospace engineer, a scholar in Tamil literature, and a keen researcher in IVC.)*



**Note:** On page 319, the important applique sculpture found inside the Adichanallur burial urn is shown. Archaeologists explained that the solitary piece of a crocodile placed near the blackbuck and crocodile pair above does not belong there and comes from elsewhere. See the Archaeological Survey of India report on the Adichanallur Excavations.

Excavations at Adichchanallur by Dr. Sathyabama Badreenath. Publisher: The Director General, Archaeological Survey of India. New Delhi, 2020. On the cover page, and inside in a page, the blackbuck and crocodile shard is shown.

## EXCAVATIONS AT ADICHCHANALLUR



**Dr. SATHYABHAMA BADHREENATH**



Description of the pottery shard inside Adichanallur burial urn.

From Excavations at Adichchanallur by Dr. Sathyabama Badreenath, ASI, 2020

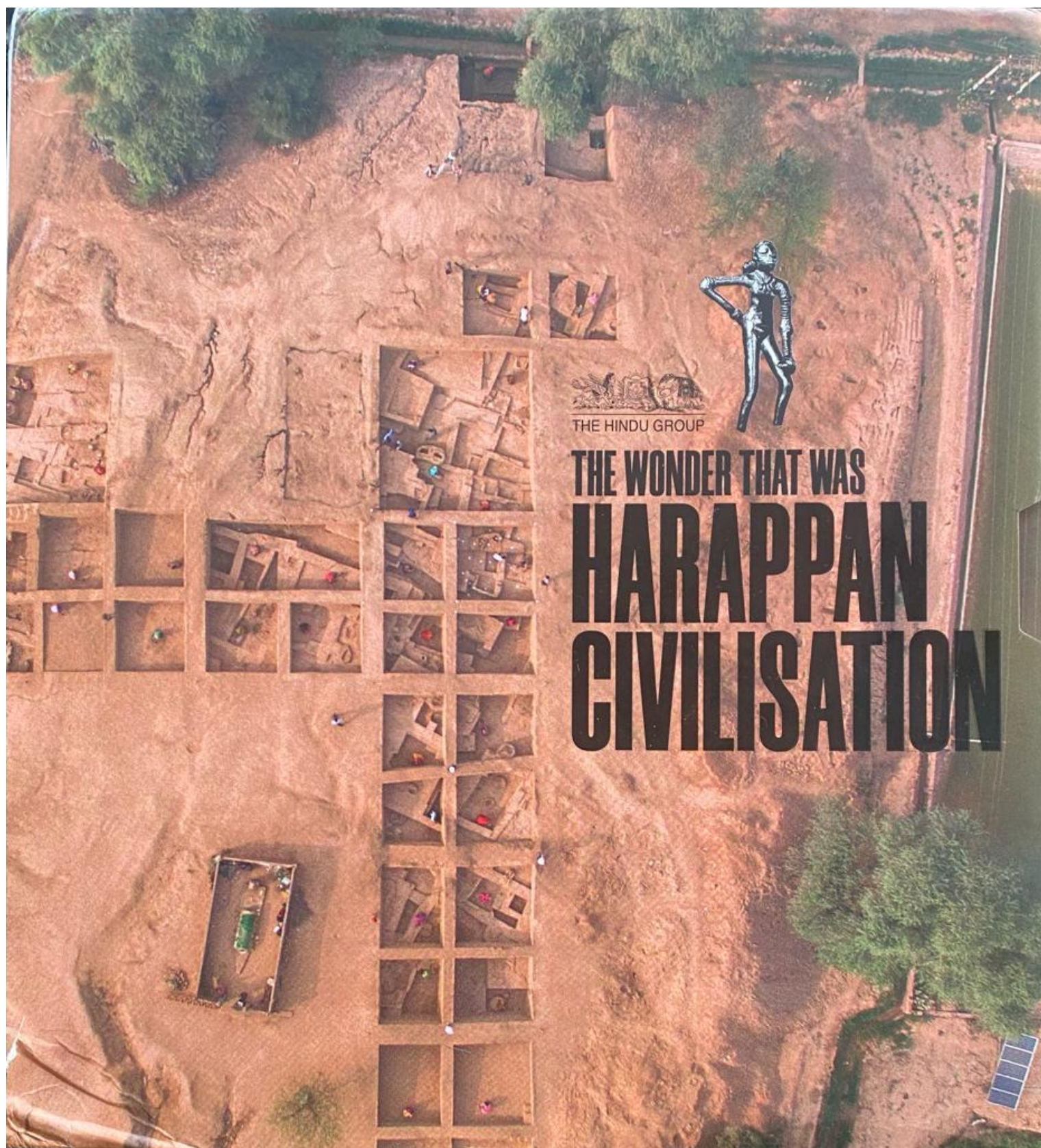
### **Decorated Potsherd**

Urn no 54 was filled with earth. On removing the earth, a broken lid with appliqué carving was noticed. The scene depicted was that of a stylized lean figure of a female wearing a thin garment which is prominently seen below the knee. The hands and legs (partially broken) are slim and the fingers of both the hands are stretched out. The breasts and face are depicted prominently by small protuberances. To her right is shown a plant (paddy?) which has five sheaves emerging and the leaves are depicting standing erect and also drooping on either side. A crane is shown seated on this plant and holding a fish. To the left of the figure is shown a deer and below it an alligator. All the figurines are angular and designed in rope design. The marine life depicted through the fish and alligator might indicate that the scene is depicted nearby a river.



**Decorated Potsherd**







# Acknowledgements

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**Cover:** A drone picture of the trenches excavated at the Harappan site of 4MSR, near Anupgarh town in Rajasthan. What stands out separately on the extreme left is a 'key trench', which is a reference point for the culture of the site.

COURTESY: ASI

**Rear flap:** A rhino bronze excavated at the Harappan site of Daimabad, Maharashtra.

PHOTO: T.S. SUBRAMANIAN

**Contents Page:** A Harappan Mother Goddess figurine.

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## ***The Hindu* launches book on Harappan civilisation**

<https://www.thehindu.com/news/cities/chennai/the-hindu-launches-book-on-harappan-civilisation/article65857978.ece>

CHENNAI September 06, 2022 21:41 IST

### **At launch event, Tamil Nadu Minister Thennarasu calls for local people to do their part in preserving archaeological findings**

A sense of ownership must be created among the local people about the importance of preserving the archaeological findings, particularly in less-known places, Thangam Thennarasu, Tamil Nadu Minister for Industries, Tamil Development and Archaeology, said on Tuesday while launching *The Hindu*'s book *The Wonder That Was Harappan Civilisation* at the newspaper's office here.

N. Ram, Director, The Hindu Group, received the first copy of the book.

Lauding the extensive book that has intricate details of the Harappan civilisation, Mr. Thennarasu said it would serve as an eye-opener. Noting that there were several archaeological sites that faced disturbances and encroachments, he said local people must be involved in preserving the exquisite findings.

Elaborating on the remarkable changes in archaeological explorations after the progress in the Keezhadi excavation, he said more research needs to be done on the possible links of Keezhadi with the Harappan civilisation. The Minister pointed as examples the Adhichanallur excavations bearing several similarities with the Harappan civilisation, and the punch mark coins discovered at the Keezhadi site revealing trade links between north and south, remarking that there are many opportunities to establish Tamil Nadu's links with the northern civilisation.

Citing epigraphist Iravatham Mahadevan who recorded similarities between the script in the Indus Valley and an early form of Dravidian language, Mr. Thennarasu said the State government has also allocated funds to study the possible links. Many puzzles about Harappan civilisation still need to be unravelled. Indus script and seals have been only partially deciphered and more explorations are essential to learn about the civilisation. Every archaeological excavation has provided new discoveries and artefacts right from the times of British archaeologist John Marshall, he added.

The 356-page book curated by T.S. Subramanian, former Associate Editor, *Frontline*, has about 600 photographs, maps and several illustrations. Besides articles by Mr. Subramanian, the book has articles by several scholars.

Appreciating the book as substantial work by *The Hindu* team, Mr. Ram recalled his involvement with the subject during a recent visit to the earliest site of the Harappan civilisation. Other civilisations such as Sumerian, Mesopotamian and Egyptian were better researched, he added. The Harappan civilisation was also an extensive civilisation and a fascinating subject; several Harappan sites have been discovered but not all have been excavated yet, he said.

Quoting from Tony Joseph's *Early Indians*, Mr. Ram said the book had an interesting conclusion that early Indians are of multi-source civilisations and indicated a strong, well-established connection between Harappan civilisation and southern India, especially the land of Tamils.

Mr. Subramanian said the book was being launched to mark the centenary in 2024 of the announcement of the discovery of the Harappan civilisation, UNESCO recognition for the Harappan-era city Dholavira in 2021 as World Heritage Site and the centenary of the first excavation that took place in Mohenjo-daro in 1922-23. Mounds and seals played a significant role in the discovery of the Harappan civilization, he added.

பொள்ளாச்சி நா. கணேசனார் திருத்தசாங்கம்

கவிஞர் இனியன், வஞ்சி மாநகர் (கருர்)

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